# Dultmeier Sales LLC

P.O. Box 45565 • Omaha, Nebraska 68145-0565
Phone: (402) 333-1444 • Fax: (402) 333-5546
email: dultmeier@dultmeier.com • website: http://www.dultmeier.com


Instructions for programming a Raven DCS400 Console for Anti-Icing

The initial 3 settings on the DCS400 are basic controller settings that remain with the controller unless a hard reset is done (hold down the "CE" button while turning the power switch on). This is not usually needed unless it is necessary to change any of the 3 initial settings:

To skip through possible selections press the "CE" button, to enter the current choice press "ENTER"

The first selection is application rate measurement, the choices are as follows:
US (lane miles)
SI (lane kilometers) or
TU (1000 sq. ft)

Typical selection is US

Next selection is SP1, SP2
SP1 (Wheel drives, Speedometer, transmission cables)
SP2 (Radar, GPS)

Typical selection SP2

Next selection is Valve Type:
C-Sd (standard valve)
C-F (Fast Valve)
C-Fc (Fast Valve Close)

Selection is based on existing control valve. Large silver sticker on control valve will have this notation. (also note the valve calibration number on the same sticker, this will be used later)

After these three choices have been made, they will be saved in permanent memory. These steps should not ever need to be done again unless a change is required.

***You may not need to do the above steps with a previously programmed controller!***

The following page describes calibration of the controller:

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In calibration mode, the rate window will display CAL until all calibration numbers are entered.

To enter a number first depress the “ENTER” button, confirm that there is an “E” in the data windos, then entire desired numbers then presss “ENTER” a second time. If you press a number withouth the “E” displayed you will just be shown the calibration screen for the corrsesponding button you pressed. (i.e. the #4 button is also the meter cal button).

Width Cal. The width cal has 4 required numbers. The first is “Lane” this is your lane width. Typical value is 12’.

Press “ENTER”, then press 1,2,0, “ENTER” for a value of 12.0 feet.
The Width Cal also requires each boom section to have a value. Press the down arrow to access the boom sections.

B-L: (Boom Left) Typical value is 144 inches. Press, Enter, 1,4,4 Enter
B-C: (Boom Center) Typical value is 144 inches. Press, Enter, 1,4,4 Enter
B-R: (Boom Right) Typical value is 144 inches. Press, Enter, 1,4,4 Enter

Boom Left and Boom right may be smaller values if they do not cover an entire 12 foot lane.

Speed Cal. If using a Sky-Track GPS Speed Sensor: ENTER, 5,8,9, ENTER

Meter Cal. From the small white sticker on the flow meter enter the corresponding value. Typical values are between 680 and 720

Valve Cal. Enter the number from the silver sticker on the control valve (recorded earlier) Typical values are either 743 or 2123

Rate Cal. These Correspond to the 6 rates on the rate knob. To access each rate use the up or down arrow.
Suggested rates depend on your liquid product and your snow control operations directions.
EXAMPLES

| | | |
|---|---|---|
| R-01 | 10 | “ENTER” 1,0, “ENTER” |
| R-02 | 20 | “ENTER” 2,0, “ENTER” |
| R-03 | 30 | “ENTER” 3,0, “ENTER” |
| R-04 | 40 | “ENTER” 4,0, “ENTER” |
| R-05 | 50 | “ENTER” 5,0, “ENTER” |
| R-06 | 60 | “ENTER” 6,0, “ENTER” |

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Blast Cal.

The blast cal corresponds to the red blast button on the panel. It is a higher rate for a small period of time

BL-R (Blast Rate) Typical higher value like 100
Down arrow – BL-S (Blast Seconds) Typical value is 3 seconds.

This is all that is required to calibrate your DCS400. You can enter miscellaneous information like tank volume and time if you'd like for operators knowledge.

Please call if you have any questions.

Sincerely,


Michael Sall
De-ice Division
Dultmeier Sales
(800) 228-9666 ext. 5537